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Halloysite and Related Mesoporous Carriers for Advanced Catalysis and Drug Delivery

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Abstract

© The Royal Society of Chemistry 2017. For more precise structure control, bottom-up approaches have especially been paid much attention to control nanoscale structures on the basis of the organizing capabilities of the materials themselves. A more advanced concept, nanoarchitectonics, has recently been proposed to promote these nanotechnology flows. Among countless numbers of materials candidates, structurally defined inorganic materials can be nice hosts for development of functional materials structures according to nanoarchitectonics. In this chapter, we mainly focus on introduction of research examples on functionalization of the halloysite nanotubes for catalysis and antibacterial activities. In addition, several examples of hierarchic silica nanostructures for applications such as drug delivery are also briefly introduced.

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